

DSAT: Data Storage and Analytics Tool, Phase I

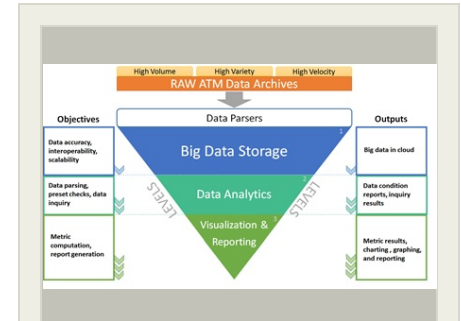
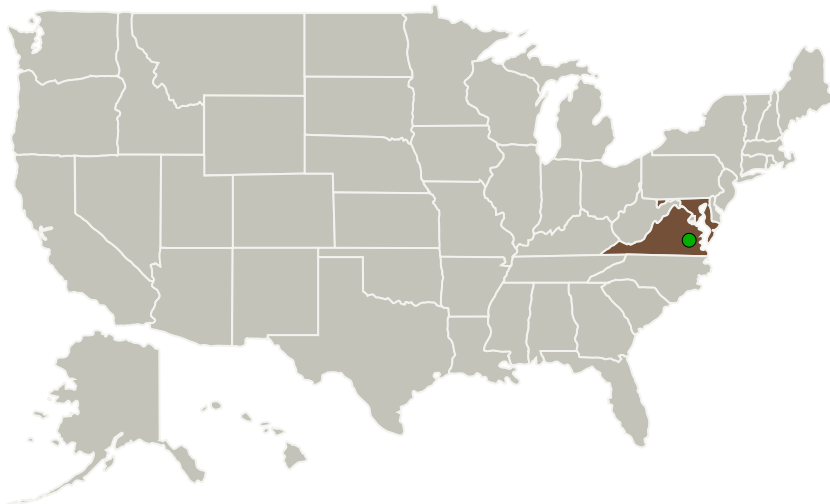
Completed Technology Project (2014 - 2014)



Project Introduction

The aim of this project is the development a large data warehousing and analysis tool for air traffic management (ATM) research that can be accessed by users through intuitive web-based User Interface (UI). DSAT is designed to support requirements of a variety of ATM users, from data handlers interested in maintaining data quality to researchers looking for patterns in acquired data to analysts who need to compute basic metrics on a particular subset of data to managers who need to visualize and report results from a particular analysis. DSAT is a multi-level, multi-objective tool for big data analysis that extracts ATM data from a variety of ATM data stores and prepares it for holistic analysis within an actionable timeline. At this time no turnkey software exists that supports all levels of data handling from storage to reporting for ATM research DSAT serves the purpose of a variety of users through a set of tools customized to handle different types of ATM analysis for different types of users. In particular, DSAT is a (i) data storage tool, (ii) data analysis tool, and (iii) visualization and reporting tool all wrapped into one.

Primary U.S. Work Locations and Key Partners



DSAT: Data Storage and Analytics Tool Project Image

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Organizations Performing Work	Role	Type	Location
Intelligent Automation, Inc.	Lead Organization	Industry	Rockville, Maryland
● Langley Research Center(LaRC)	Supporting Organization	NASA Center	Hampton, Virginia

Primary U.S. Work Locations	
Maryland	Virginia

Project Transitions

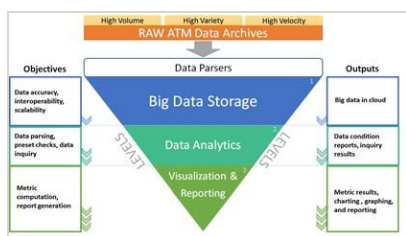
▶ **June 2014:** Project Start

✓ **December 2014:** Closed out

Closeout Documentation:

- Final Summary Chart(<https://techport.nasa.gov/file/137416>)

Images



Project Image

DSAT: Data Storage and Analytics Tool Project Image
(<https://techport.nasa.gov/image/130914>)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Intelligent Automation, Inc.

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

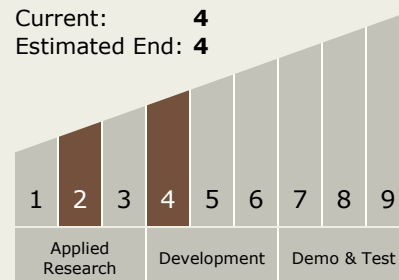
Carlos Torrez

Principal Investigator:

Jyotirmaya Nanda

Technology Maturity (TRL)

Start: 2
Current: 4
Estimated End: 4



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Technology Areas

Primary:

- TX11 Software, Modeling, Simulation, and Information Processing
 - └ TX11.6 Ground Computing
 - └ TX11.6.7 High Performance Data Analytics Platform

Target Destinations

The Moon, Mars, Outside the Solar System, The Sun, Earth, Others Inside the Solar System